

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 23, 2000

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director

**FROM:** C. H. Keilers / R. T. Davis

**SUBJECT:** SRS Report for Week Ending June 23, 2000

**H-Canyon:** On Monday, two Radiological Control Operators (RCOs) wearing respirators entered the warm gang valve corridor to investigate a Continuous Air Monitor (CAM) alarm and discovered a steam leak. In parallel, the canyon control room was conducting a transfer by steam jet. WSRC later found that the corridor had high airborne activity, but that the RCOs did not receive an uptake. The airborne activity appears to have been caused by a steam leak associated with the transfer.

This occurrence appears to indicate weaknesses in coordination and in recognizing and responding to abnormal conditions on the part of the RCOs, the control room operators, and their supervision. WSRC has developed corrective actions to clarify proper response to a CAM alarm and to train all shift crews. DOE-SR is pursuing this issue.

**Tritium Extraction Facility (TEF):** WSRC plans to begin excavation next month and to issue a request for construction bids in September for the shells of the Remote Handling Building (RHB) and the Tritium Processing Building (TPB). This week, WSRC began a RHB design review. The TPB design will be completed in May 2001. While RHB construction will be "build-to-print," TPB construction is expected to be negotiated on a unit pricing basis to accommodate design changes.

**Pit Disassembly and Conversion Facility (PDCF):** Raytheon/Battelle met with WSRC this week to discuss criticality safety analyses. A number of issues exist. For example, the current project baseline makes maximum use of existing analyses to assure criticality safety and limits new calculations to just the blending operation. As the design evolves, assumptions made in existing calculations will become less applicable. Original calculations will likely be needed if criticality safety is to depend on more than arguable extrapolations. Furthermore, Raytheon/Battelle is having difficulty obtaining existing classified analyses because of "need-to-know" roadblocks within DOE. There are many other issues. It is not clear that adequate priority is being assigned to pursuing passive and active design features instead of administrative controls. A formal double contingency analysis is not in the project baseline. The margin to criticality for design is still under discussion. Metal inputs other than pits are not being considered. The criticality reviews planned will not meet the applicable DOE standard for preparing criticality safety evaluations (STD-3007). The approach for justifying scenarios as incredible is to be determined. Analyses/reviews are not required to be completed until 90 percent of Title II design. This would probably result in criticality issues being identified late in design when they will be challenging to resolve (site rep weekly, 3/31/00).

**SRS FY01 Budget:** On June 12, DOE submitted a Congressional Notification to realign \$48M in funding in the SRS FY 01 budget and thereby accelerate 94-1 activities (see attached table). The notification also proposes starting the conceptual design on the 235-F plutonium stabilization and packaging sub-project, since APSF has been canceled. The HEU blend-down budget is reduced due to continuing delays in completing the DOE-TVA interagency agreement. The HLW budget is reduced by deferring East Hill piping upgrades and tank waste removal activities for 3 tanks. The TRU waste project includes assessing shipment of sand, slag and crucible (SS&C) directly to WIPP.

<b>Proposed FY01 Budget Additions</b>		<b>Subtractions</b>	
F-Area AmCm solution stabilization	\$1M	HEU blend-down program	-\$10M
H-Area Pu solution stabilization	\$10M	Environmental Remediation Program	-\$10M
235-F Pu stabilization/packaging	\$31M	Consolidated Incinerator Facility	-\$18M
TRU waste project	\$3M	HLW tank waste removal project	-\$10M
Low-level waste project	\$3M		
<b>Total additions</b>	<b>\$48M</b>	<b>Total subtractions</b>	<b>-\$48M</b>

**Table:** Proposed SRS FY 01 Budget Realignment, June 12, 2000.